

LISTING OF CLAIMS

Claims

1.-18. (Canceled)

19. (Previously Presented) A method for transmitting data from a transmitter to a receiver operating in accordance with the Universal Mobile Telecommunications System standard (UMTS), comprising performing inband signaling of information relevant to the UMTS base station (BS) at the MAC layer level wherein for the inband signaling between a user terminal equipment (UE) and a respective UMTS base station (BS) a signaling transport block is introduced at the MAC layer level, wherein the signaling transport block comprises Buffer Status Report information signaling the data volume of the transport channel from the user terminal equipment (UE) to the UMTS base station (BS) at the MAC layer level.

20. (Canceled)

21. (Previously Presented) The method according to claim 19, wherein at least one signaling transport block (STB) is multiplexed within the transport blocks of a transport channel that are to be transmitted.

22. (Previously Presented) The method according to claim 19, wherein a dedicated or common transport channel is used.

23. (Previously Presented) The method according to claim 19, wherein at least one signaling transport block (STB) transmits, in the field (TN UL), an uplink transmission number which is used for tracking the transmission status in the uplink, said field being k bits long.

24. (Previously Presented) The method according to claim 19, wherein at least one signaling transport block (STB) transmits, in a field (TN DL), a downlink transmission number which is used for tracking the transmission status in the downlink, said field being k bits long.

25. (Previously Presented) The method according to claim 19, wherein at least one signaling transport block (STB) transmits a field (Poll) in order to request an acknowledgment of successful transmission of a signaling transport block within a specified time from the receiver, said field being k bits long.

26. (Previously Presented) The method according to claim 19, wherein at least one signaling transport block (STB) transmits a field (MT) in which a message type is specified which is transmitted in the following message part, said field being 1-bit coded.

27. (Previously Presented) The method according to claim 19, wherein at least one signaling transport block (STB) transmits a field (MP) in which the message is transmitted which specifies the associated field (MT), and the field has a variable length of m bits depending on the type of message to be transmitted.

28. (Previously Presented) The method according to claim 19, wherein at least one signaling transport block (STB) transmits a field (Flag) which indicates whether a field (MT) is transmitted in the subsequent field, and the field is 1-bit coded.

29. (Previously Presented) The method according to claim 19, wherein a signaling transport block (STB) transmits a field (Pad) which is used for padding out the unused part in the MAC Service Data Unit (MAC SDU) with dummy bits.

30. (Previously Presented) The method according to claim 19, further comprising exchanging, in the signaling transport block (STB), various radio resource control messages between the base station (BS) and a user equipment (UE).

31. (Previously Presented) The method according to claim 19, further comprising introducing, in the MAC header, a data field (D/C) that indicates the type of a particular transport block.

32. (Previously Presented) Method according to claim 31, wherein a 2-bit coded data field (D/C) is added.

33. (Previously Presented) A communication system, comprising:

- at least one base station (BS), which is controlled by a higher-order radio network control entity (RNC); and

- a radio cell (CE) served by the base station (BS) in which there exists a communications connection between the base station (BS) and at least one user terminal equipment (UE) over an air interface (Uu) with a UMTS protocol structure,

- wherein a plurality of RRC functionalities are disposed in the form of at least one control and/or data processing means transferred from the radio network control entity RNC to the base station (BS).

34. (Canceled)

35. (Previously Presented) The communication system according to claim 33, further comprising a plurality of special signaling transport blocks (STB) and two different transport block formats are provided.

36. (Previously Presented) A computer program product including a memory for storing instructions that when executed by a data processing system, allows said data processing system, in conjunction with a communication system to appropriately implement according to a UMTS standard, the method according to claim 19.

37. (Previously Presented) The method according to claim 20, wherein the dedicated transport channel is a DCH.

38. (Previously Presented) The method according to claim 19 wherein the information comprises one or more of the following list:

- information for a user equipment to reconfigure the physical channels in the uplink and the downlink;
- information for a user equipment to reconfigure the transport format and transport format combinations in the uplink and downlink;
- information for a user equipment about the buffer status of the radio bearers or logical channels which are multiplexed into the transport channel.

39. (Previously Presented) The method according to claim 19, wherein the signaling transport block is transmitted using CDMA via an air interface.

40. (Previously Presented) The method according to claim 19, wherein the signaling transport block is transmitted in FDD mode.

41. (Previously Presented) The method according to claim 19, wherein the signaling transport block is transferred to the physical layer.

42. (Previously Presented) The method according to claim 19, wherein the inband signalling is carried out for one or more of the following RRC functions of the base station:

- reconfiguration of physical channels in the uplink and downlink;
- reconfiguration of the transport formats and the transport format combinations in the uplink and downlink;
- switching of the transport channel type, i.e. from common transport channels to dedicated transport channels and vice versa;
- setting of the uplink SIR_{target} for fast performance control of dedicated physical channels.

43. (Previously Presented) The method according to claim 19, wherein a transport channel is selected for transmitting the signaling transport blocks.

44. (Previously Presented) The method according to claim 19, wherein a transmission counter is increased by 1 after sending the signaling transport block.

45. (Canceled)